

Clarke® *PUMP*



Petrol Driven Water Pump

Model No. CD1 - 1

Part No. 7230034

OPERATING & MAINTENANCE INSTRUCTIONS





Thank you for purchasing this Clarke CD1 petrol driven water pump. Before attempting to operate this pump please read this instruction manual thoroughly and follow all directions carefully. This is for your own safety and that of others around you, and to help you achieve long and trouble free service from your pump.

Guarantee

This product is guaranteed against faults in manufacture for 12 months from purchase date. Keep your receipt as proof of purchase. This guarantee is invalid if the product has been abused or tampered with in any way, or not used for the purpose for which it is intended. The reason for return must be clearly stated. This guarantee does not affect your statutory rights.

Contents

Page

Installation	3
Operating Instructions	4
Starting	4
Stopping	4
Maintenance	4-5
Storage	5
Troubleshooting	5
Parts List and Exploded view - Engine	6-7
Parts List and Exploded view - B53 Recoil Starter	8
Parts List and Exploded view - Standard Recoil Starter	9
Parts List and Exploded view - Pump	10-11
Parts and Service	11

Installation

WARNING! Never run the engine in an enclosed space. Ensure adequate ventilation at all times.

The pump must be situated on a firm, flat, level surface. Make sure that the pump is placed away from the edge of any pit or pool and cannot fall in. The suction and discharge fittings supplied with the pump are suitable for 1" I.D. hose (not supplied). For best performance, keep the suction pipe as short as possible, and make sure that all connections are airtight. The pump will not work with air in the suction pipe.

For applications where the suction level is below the pump, we recommend the use of a foot valve (non-return valve) to retain water in the suction pipe. To prevent clogging of the pipes or pump, we suggest that you fit a suction strainer to the end of the suction pipe.

Protect the pipework and the pump from freezing as the formation of ice in the pump can cause damage. If the pump is installed in a location likely to freeze, drain the pump (by removing the pump drain plug), and the pipework after use.

General Arrangement



Operating Instructions

The pump is designed to pump water. Do not use it to pump flammable liquids or chemicals.

Before starting the pump engine, prime the pump by removing the vent plug and filling the pump casing with water. Do not run the pump dry as damage can result. Fitting a foot valve (non-return valve) to the end of the suction pipe, and filling the suction pipe with water will speed priming. Fill the fuel tank with 2-stroke fuel, mixed at the ratio of 20:1 petrol to 2-stroke oil (50ml of oil per litre of petrol).

WARNING!

Never fill the fuel tank whilst the engine is running. Always stop the engine and allow to cool before filling with fuel.

Starting

1. Open the fuel cock.
2. Set the choke lever to position 'C'.
3. Set the throttle lever to approximately 1/2 throttle.
4. Pull the starter recoil rope slowly two or three times to allow fuel to reach the carburettor.
5. Hold the pump down and pull the starter recoil rope firmly until the engine starts. Do not snatch at the starter rope, and allow the rope to retract slowly after each pull.
6. Once the engine starts, return the choke lever to position 'A', and use the throttle to gradually increase the engine revs to the desired speed.

Note: Do not run the pump at more than approximately 1/2 speed, or run it for more than 3 hours continuously, for the first 20 to 30 hours of use. This allows the pump to run-in.

Stopping

1. Gradually reduce the engine speed to minimum.
2. Stop the engine by pressing the Stop button, situated just above the recoil unit at the back of the engine.
3. Close the fuel cock.
4. If the pump is not to be used for some time, or is in a location likely to freeze, remove the drain plug and drain the pump completely.
If the pump has been used with dirty or salt water, rinse it through with clean water.

Maintenance

Clean the engine and pump assembly regularly, checking for any loose bolts etc. Lubricate linkages with a general purpose oil or grease as appropriate. The engine is lubricated internally by the 2-stroke fuel.

Clean the air filter at least every 30 hours of operation; more frequently if the pump is used in a particularly dusty environment. Remove the air filter cover and the air filter element, and wash the filter in petrol or paraffin.

Check the spark plug gap, and clean the electrodes, every 50 hours of operation. The spark plug gap must be 0.6 -0.7mm.

Occasionally remove the exhaust silencer and shake out any rust flakes which may be loose inside it, and check that the fuel filter is clean.

Storage

Clean the pump and engine, and drain the pump completely. Drain any fuel from the carburettor and fuel tank, and store the pump in a clean and dry area.

Additionally, if the pump is not to be used for some time, remove the spark plug and pour 2 or 3 teaspoons full of oil into the cylinder through the spark plug hole. Pull the starter recoil rope slowly 2 or 3 times to allow the oil to coat the internal parts of the engine, and replace the spark plug.

Troubleshooting

CAUTION: Do not run the pump dry as damage can result.

If your CD1 fails to pump check that:

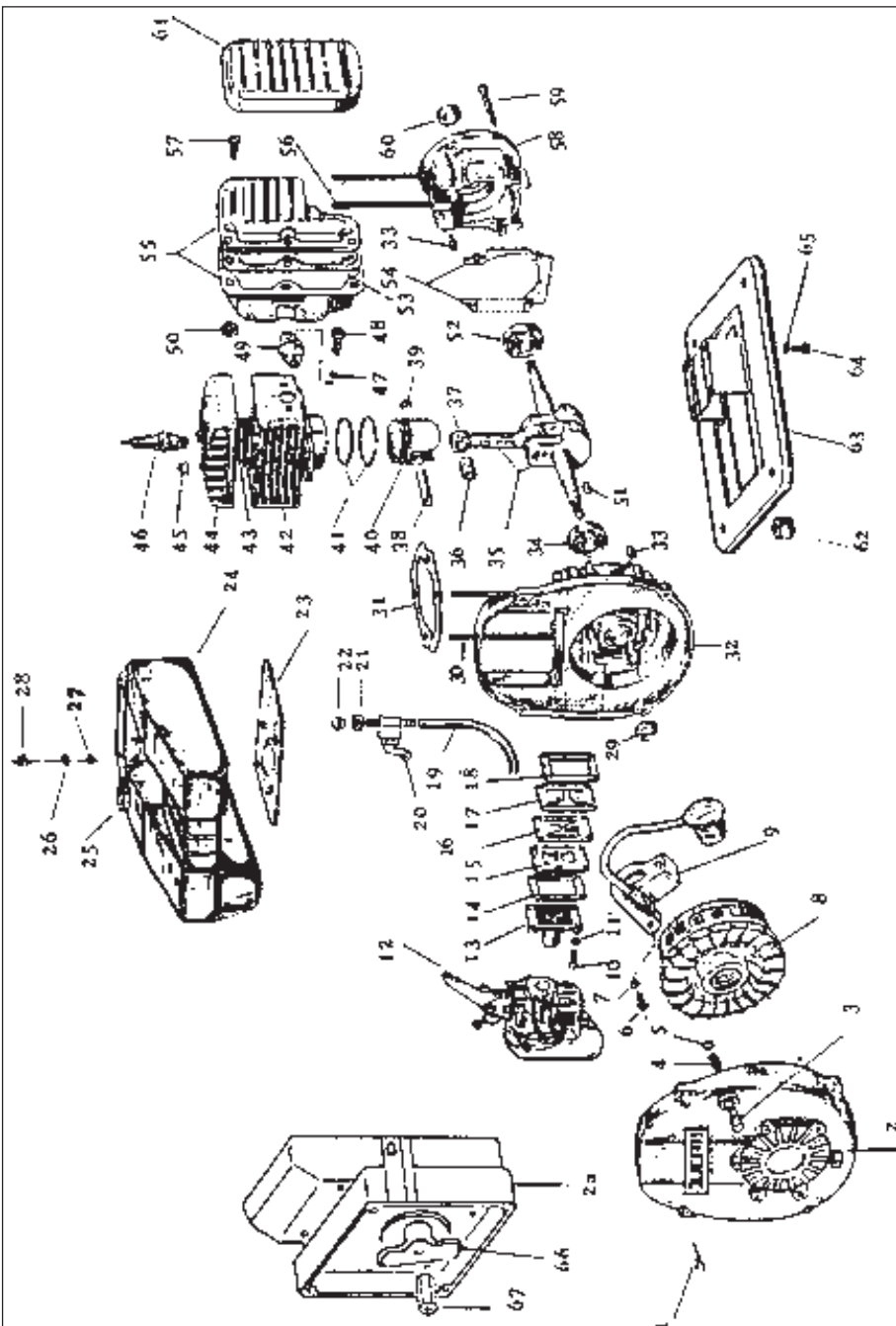
1. The pump is primed - prime the pump by removing the vent plug and filling the pump casing with water.
2. The suction pipe is in water.
3. The suction filter (if fitted) is not blocked.
4. The suction hoses are not blocked or collapsed.
5. All suction pipe connections are airtight.
6. The discharge pipe is not blocked.

If the engine fails to start, or runs erratically, check that:

1. There is fuel in the tank.
2. The fuel is mixed at the correct ratio (20:1 petrol to 2-stroke oil).
3. The fuel cock is fully opened.
4. The spark plug is clean and the gap is correctly set.
5. The air filter is clean.
6. The fuel filter is clean.

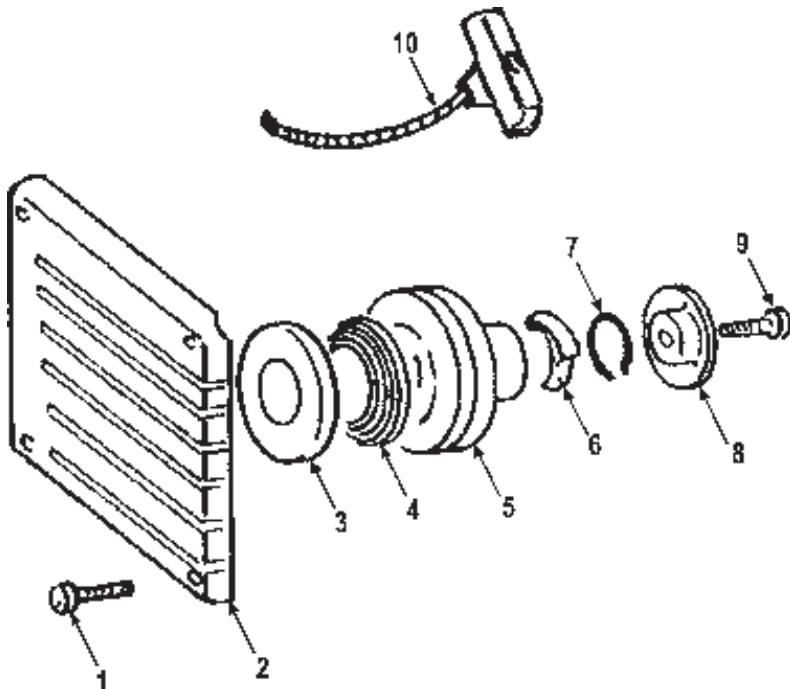
Parts List and Exploded view - Engine

No.	Qty	Description	Part No	No.	Qty	Description	Part No
1	4	Screw M5 x 25	GM7306	37	1	Con rod assembly	GMB152
2	1	Cover (std recoil starter)	GMB219	38	1	Piston pin	GMB146
2A	1	Cover (B53 recoil starter)	GMB387	39	2	Circlip	GMB147
3	1	Stop button	GMB191	40	1	Piston	GMB144
4	1	Button spring	GMB190	41	2	Piston ring	GMB145
5	1	Circlip	GMB207	42	1	Cylinder	GMB249
6	2	Screw M4 x 15	GM7308	43	1	Head gasket	GMB185
7	2	Washer	GM7570	44	1	Cylinder head	GMB160
8	1	Flywheel	GMB133	45	4	Nut M6	GM6304
9	1	Coil	GMB132	46	1	Spark plug	GMB253
10	4	Screw M5 x 20	GM7319	47	2	Washer	GM6156
11	4	Washer	GMA661	48	2	Screw M6	GMA699
12	1	Carburettor	GMB135	49	1	Gasket	GMB189
13	1	Inlet duct	GMB244	50	6	Nut M4	GM6719
14	1	Duct gasket	GMB241	51	1	Key	GMB242
15	1	Diaphragm plate	GMB243	52	1	Bearing	GMA656
16	1	Inlet diaphragm	GMB240	53	1	Silencer gasket	GMB188
17	1	Diaphragm plate	GMB239	54	1	Gasket	GMB187
18	1	Duct gasket	GMB241	55	1	Silencer	GMB168
19	1	Fuel pipe	GMA611	56	2	Tie rod	GMB237
20	1	Fuel cock	GMB148	57	6	Screw M4 x 25	GM7307
21	1	Nut	GMB333	58	1	Crankcase	GMB223
22	1	Washer	MB334	59	4	Screw M5 x 40	GM7305
23	1	Tank gasket	GM7222	60	1	Seal ring	GMA338
24	1	Fuel tank	GM7605	61	1	Silencer cover	GMB369
25	1	Fuel filler cap	GM7611	62	4	Rubber foot	GMA576
26	4	Washer	GM6157	63	1	Engine support	GM5318
27	4	Gasket	GM7604	64	4	Screw	GMA691
28	4	Nut M6	GM6276	65	4	Washer	GM6156
29	1	Seal ring	GMA338	66	1	Insert (B53 recoil starter)	GMB388
30	2	Tie rod	GMB237	67	1	Nut (B53 recoil starter)	GMB386
31	1	Cylinder gasket	GMB186			Gasket set (Items 23, 29, 31, 43, 53, 54)	GMB366
32	1	Crankcase	GMB299			Complete piston (Items 38, 39, 40, 41)	GMB381
33	2	Bush	GMB290			Complete cylinder (Items 38, 39, 40, 41, 42)	GMB355
34	1	Bearing	GMA656				
35	1	Cylinder shaft	GMB362				
35A	1	Conical shaft	GMB221				
36	1	Bush	GMB323				



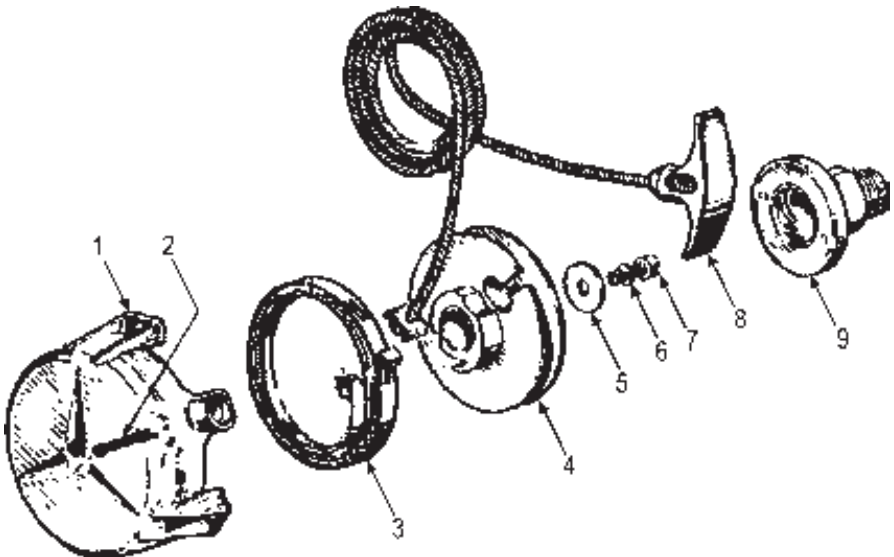
Parts List and Exploded View - B53 Recoil Starter

No.	Qty	Description	Part No
1	4	Screw M5 x 25	GM8110
2	1	Cover	GMA430
3	1	Spring cover	GMA399
4	1	Return spring	GMA378
5	1	Start pulley	GMA447
6	1	Plastic insert	GMA136
7	1	Spring	GMA207
8	1	Cover	GMA409
9	1	Screw M6 x 35	GMA655
10	1	Handgrip and cord	GMA741
		Complete recoil starter	GMA712



Parts List & Exploded View - Standard Recoil Starter

No.	Qty	Description	Part No
1	1	Starter case	GMB233
2	1	Cotter	GMB213
3	1	Return spring	GMB159
4	1	Start pulley	GMB329
5	1	Washer	GMB327
6	1	Washer	GMB238
7	1	Screw	GM7525
8	1	Handgrip and cord	GMA741
9	1	Complete pawl box	GMB225
		Complete recoil starter	GM8145



Parts List and Exploded view - Pump

No.	Qty	Description	Part No
1	1	Pump body	GM5120
2	1	Support	GM7033
3	1	Impeller	GM7479
4	1	Gasket	GM5129
5	1	Counterface	GM6344
6	1	Mechanical Seal	GM6332
7	1	Valve body	GM7039
8	1	Rivet	GM5133
9	1	Valve gasket	GM5128
10	1	Washer	GM6168
11	1	O ring	GM5326
12	1	Plug 3/8"	GM6217
13	1	Plug 1/8"	GM6208
14	1	O ring	GM5127
15	1	Diffusor	GM7025
16	2	Connection	GM1011
17	1	Bush	GM5125
18		Complete motor (with B53 recoil starter)	GM8104
18		Complete motor (with standard recoil starter)	GM7381

Spare Parts and Service Contacts

**For Spare Parts and Service, please contact your nearest dealer, or
CLARKE International, on one of the following numbers.**

PARTS & SERVICE TEL: 020 8988 7400

PARTS & SERVICE FAX: 020 8558 3622

or e-mail as follows:

PARTS: Parts@clarkeinternational.com

SERVICE: Service@clarkeinternational.com

